

**Office of Energy Independence and
Wisconsin Department of Agriculture, Trade and Consumer Protection**



Your monthly source for news on the growing bioeconomy
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Here at Home

Investing in Energy Independence

Wisconsin Governor Jim Doyle's plan to provide \$30 million to fund renewable biofuels and other energy projects advanced in budget passed by the state Senate. The Governor highlighted the initiative and potential for Wisconsin's bio-industry during a visit to the state's - and the country's - newest biogas production facility at the Crave Brothers' Farm in Waterloo. The remote-controlled biogas system, owned and operated by Clear Horizons, LLC of Milwaukee, is capable of using organic farm waste to generate enough clean and renewable energy to power 200 homes, advancements that help bring Wisconsin closer to energy independence.

Nothing Cheesy About Energy Efficiency

Wisconsin is looking for fund projects that will help its cheese industry cut costs and produce energy from byproducts and waste streams. Funding for the projects comes from public and private sources, including Focus on Energy's Industrial and Agriculture and Rural Business Program, a portion of the state's energy efficiency and renewable energy initiative. Cheese makers should submit project concepts for funding consideration to the Office of Energy Independence by July 15. Projects may be eligible for up to \$250,000 in grant assistance.

Bucky Bags Bio Award

The University of Wisconsin-Madison has won one of the largest federal grants in its history to create a center that will explore how to convert cornstalks, wood chips, grass and other plant material into fuel for cars and power plants. The award of \$125 million over five years will fund the Department of Energy (DOE) Great Lakes Bioenergy Research Center in Madison.

An Alternative Alternative Fuel

DMF - 2.5 dimethylfuran - may not yet be a household name, but thanks to newly improved production processes, this biofuel may some day prove to be a sustainable alternative to gasoline. Like ethanol, DMF can be derived from sugars, but it has a 40 percent higher energy density, says James Dumesic, a chemical engineer at the University of Wisconsin-Madison. That means cars could get at least as many miles per gallon of DMF as they get from gasoline.

Sharon Permitted to Build Ethanol Plant

Plans are progressing to build what would be one of the largest ethanol plants in Wisconsin. [Global Renewable LLC](#) of Whitewater has received the final air and construction permits for the plant at Sharon, Wisconsin, right on the Illinois border east of Beloit. The company says it has received preliminary approval for up to \$76.6 million in financing for the \$195 million project.

Ping-Pong Energy Bill

With the Senate's passage of an energy bill June 21, action shifts to the House, where leaders will be rolling out their own plan for America's energy future. The Senate-passed bill would, among many other things, mandate use of 36 billion gallons of renewable fuels by 2022, of which 21 billion gallons would come from non-feed grain sources. Because the Senate put its bill into the House bill (HR 6), the House is likely to make additional modifications and send it back to the Senate; or they could ask for a conference committee to negotiate an agreement between the chambers.

Climate Warming for Biofuels on Capitol Hill

The energy bill deliberations highlight increased support in Washington for biofuels. The 36 billion gallons by 2022 target is more than six times the capacity of the nation's 115 ethanol refineries. But while many other provisions of the energy package are controversial, the biofuels mandate has solid bipartisan support.

Dorr Open to Cellulosic Ethanol

USDA Under Secretary Tom Dorr recently expressed strong support for new research money in the new Farm Bill to develop cellulosic ethanol production. "This is something I get really excited about, because we are really building a brand-new energy source to help us diversify away from oil," Dorr made the comments while awarding a grant to help six counties in southeastern Colorado do a feasibility study on the prospects of small, farm-based ethanol plants.

Capital E85

The first ethanol fueling station in the District of Columbia opened for drivers June 28, joining a small but growing group of stations nationwide selling the biofuel. The Georgetown Chevron will sell VeraSun's branded VE85, a blend of 85 percent ethanol and 15 percent gasoline, in addition to regular gas. The price that day was \$2.55 as gallon, 62 cents cheaper than \$3.17 a gallon for regular gasoline.

Latest Ethanol Goal to be Hit Early

A top official with the National Corn Growers Association said he expects 15 billion gallons of ethanol to be produced annually in the United States much sooner than the group had once predicted. Ken McCauley, president of the association and also a farmer, said the group had originally estimated it would not be until 2015 that 15 billion gallons of ethanol would be produced. He now believes it could possibly happen in 2011 or 2012 – and definitely before 2015.

Don't Blame Ethanol

Surging oil and gasoline prices – not increased corn ethanol production – is mainly to blame for driving up the cost of groceries, according to [a recent study](#) funded by the Renewable Fuels Association (RFA). The study found that a \$1 increase in the price of gasoline will result in a 0.6 percent to 0.9 percent increase in consumer food prices, compared to a 0.3 percent jump resulting from a \$1 a bushel increase in the price of corn. "Energy costs have a much greater impact on consumer food costs as they impact every single food product on the shelf," said the study's author. "Energy is required to produce, process, package and ship each food item. Conversely, corn prices impact just a small segment of the food market as not all products rely on corn for production."

Pelletize THIS!

All corn used to make ethanol is not diverted from the animal feed supply; distiller's dried grains with solubles (DDGS) is the protein, fat, fiber, unconverted starch and ash left over after ethanol production. This by-product is a high-protein, low-starch nutrient content feed for livestock. Using dried distiller's grains derived from corn-based ethanol production, scientists at USDA's Agriculture Research Service (ARS) have created DDGS pellets at a commercial feed mill. Scientists worked to pelletize the product to ease product deterioration issues in non-pelletized DDGS, which can occur during shipping and storage.

Mmm, Mmm, Good

Chemical engineers at the Agricultural Research Service ([ARS](#)) [Western Regional Research Center](#) in Albany, Calif., think it may be possible to cut energy costs by using a series of specially designed permeable plastic sheets, or membranes, to produce ethanol from fermented broths of corn, or straw and other kinds of biomass feedstocks.

An Ode to Corn Cobs

[Poet Companies](#) of Sioux Falls, South Dakota, announced that their Project Liberty cellulosic ethanol plant expansion in Emmetsburg, Iowa, will use corn cobs only, not all corn stover, in producing cellulosic ethanol. Company officials said that means only 18% of corn stover will be used in the cellulosic process, leaving the rest of the corn stover on the field, an important environmental benefit.

Sugar Rush

In a decade or so, sugar may be the fuel that powers your car or truck. Scientists are working on the science and technology to convert sugary carbohydrates, including starch, into low-cost hydrogen.

Ride the BioCycle

The Seventh Annual BioCycle Conference on Renewable Energy from Organics Recycling on October 1, 2, 3, 2007 in Indianapolis, Indiana. Conference registration fee of \$395 includes attendance at all sessions, field trips and exhibits.

Around the World

Take Two Gallons and Call Me in the Morning

Is Ethanol good for your health? Japanese researchers have injected it into the skin to attempt to kill cancerous bone tumors. In a small study of 12 thyroid cancer patients, the ethanol injections reduced the volume of tumors by more than 50 percent in all the patients. Researchers say further studies are needed. The findings were presented at the recent annual meeting of the [Society of Nuclear Medicine](#).

DDGS Makes a Run For the Border

U.S. exports of DDGS to Mexico have seen a significant increase. The [U.S. Grains Council \(USGC\)](#) says that in 2003, Mexico imported less than 50,000 metric tons of U.S. DDGS. In 2006, Mexico became the number one market for the U.S. in DDGS sales at 428,000 tons.

ADM Sweet on Brazilian Ethanol

[Archer-Daniels-Midland](#) of Illinois, a leader in ethanol production, reportedly plans to get into the sugar-cane ethanol business in Brazil, according to CNN. Company officials are reportedly considering, among other things, the full purchase of the largest producer of ethanol in Brazil, of which they already own a small part.

Brazil's Biofuel Bonanza

Thirty years ago in Brazil, a group of visionaries saw the potential of bioethanol made from sugarcane as a transportation fuel and created a national program promoting its use. Fast-forward to a month ago, when a group of U.S. and Brazilian chemists pulled up to the front gate of one of the more than 300 bioethanol plants in Brazil. What immediately grabbed the visitors' attention were the truckloads of hand-cut sugarcane rolling in from the fields. As they toured the facility, the visitors watched in awe as the sugarcane was transformed into sugar, bioethanol, and electricity - the process left nothing for waste.

All Brazil, All the Time

Brazil is likely to more than triple its ethanol output – estimated at over 20 billion liters this season – to 66.6 billion liters by 2030, according to the country's National Energy Plan. The plan approved by Brazil's National Council of Energy Policy sets forth long-term government strategies to meet the country's energy needs in a sustainable way. Over 80 percent of Brazil's estimated 66.6 billion liters in 2030 is still set to be consumed by Brazil's population.

If you have any questions or comments, please reply to POWER Update at maria.redmond@wisconsin.gov.
